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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/665,679	09/20/2000	Yuegang Zhang	DP-664 US	9832

7590 03/28/2003  
McGINN & GIBB, PLLC  
8321 Old Courthouse Road  
Suite 200  
Vienna, VA 22182-3817

EXAMINER

HENDRICKSON, STUART L

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 03/28/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

65699

Applicant(s)

Zhang

Examiner

Anderson

Group Art Unit

1257

AS-15

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on 1/14/03
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 13-21, 23-34 is/are pending in the application.
- ☐ Of the above claim(s) 33 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 13-21, 23-32, 34 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 9
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The request filed on 1/14/03 for Continued examination (RCE) based on parent Application No. 09/665679 is acceptable and a RCE has been established. An action on the RCE follows. Cancellation of claim 22 moots the amendment made thereto.

Claims 24 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) In claim 24, 'low' is subjective and thus unclear, and further unclear how it limits the product claimed. Similarly, in claim 25 'short' is unclear.

Claims 24 and 25 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. These claims do not limit the product.

Claim 32 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Thess et al. article.

Thess teaches on the fourth page 5-member carbon rings, such as metallated C60. The material appears to be the same or can be chosen to be the same by altering the metal content of the formula, and/or as varying lengths of fibers are grown.

Claim 32 is rejected under 35 U.S.C. 102(b) as being anticipated by Pradeep et al. article.

Pradeep teaches Ni-C60 and Ni(C60)<sub>2</sub>. Ni is a catalyst. The intended use, target, does not limit the product claimed.

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Claims 13, 19, 24-26, 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Lieber et al. Lieber col. 5 and example 3 teach a mixture of metal catalyst and fullerene.

Claims 14, 15, 18, 20, 21, 23, 29-31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lieber.

Lieber does not exemplify the claimed features (C60, powder), but using them is an obvious expedient to provide a reactive material or to optimize the process.

Claims 13-16, 19, 23-25, 32 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Loutfy et al.

Loutfy teaches in columns 5 and 7 C60 powder admixed with silver and pressed.

Claims 17, 18, 20, 21 and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loutfy.

The reference does not exemplify the claimed features, but suggests them among a host of choices. Thus, forming the claimed mixtures represents an obvious optimization.

Applicant's arguments with respect to claims 13-21, 23-32 and 34 have been considered but are moot in view of the new ground(s) of rejection.

Pradeep and Thess teach the claimed metals, and claim 32 is not to a mixture. Arguments to process steps are irrelevant. Subjective terms should be changed, as per quoted specification.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.



Stuart Hendrickson  
examiner Art Unit 1754